Architecture-Based Reuse Innovations, Phase I
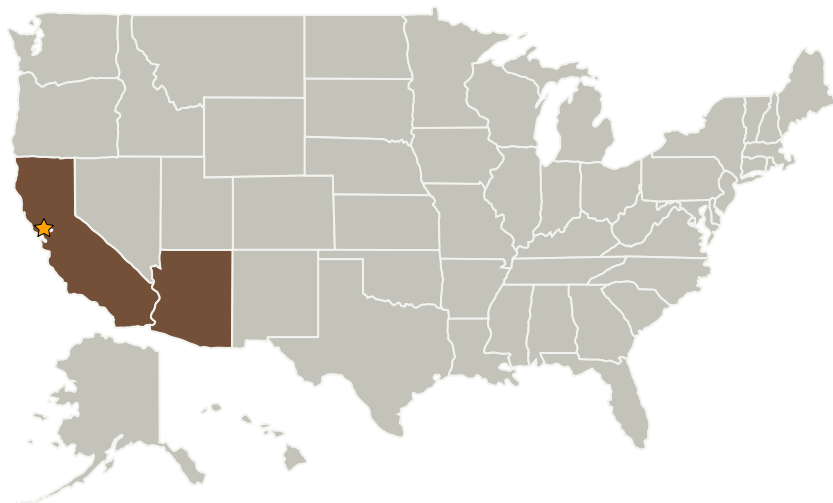
Completed Technology Project (2009 - 2009)

Project Introduction

This Phase I proposal responds to the Solicitation requirements by scoping the effort involved in developing a common software executive and aligned library of reusable support modules in parallel with a facilitating reuse infrastructure. Rather than focusing on libraries and other failed strategies, the contractor proposes to use the modern architectural concepts of service-oriented architectures, persistence and predictive computing to build a real-time executive for flight systems in a standards-based and platform-independent manner. The reuse infrastructure being built in parallel consists of a framework and related toolset that makes it easy for engineers to identify and retrieve reusable assets that provide proven value. The contractor will develop specifications for the common software executive and library of reusable support modules during Phase I. The infrastructure will be prototyped and used for a Phase I demonstration. A market survey will be conducted as part of the effort to scope the commercialization prospects and develop an initial business plan that will be used to interest potential pilot projects in partnering for a Phase II effort.

Primary U.S. Work Locations and Key Partners

Architecture-Based Reuse Innovations, Phase I

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

For more information and an accessible alternative, please visit:
https://techport.nasa.gov/view/8243

Organizations Performing Work	Role	Type	Location
⭐Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Reifer Consultants, Inc.	Supporting Organization	Industry	Prescott, Arizona

Primary U.S. Work Locations	
Arizona	California

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  └ TX11.1 Software Development, Engineering, and Integrity
    └ TX11.1.7 Frameworks, Languages, Tools, and Standards